SULIT

KEMENTERIAN PENDIDIKAN TINGGI
JABATAN PENDIDIKAN POLITEKNIK DAN KOLEJ KOMUNITI

BAHAGIAN PEPERIKSAAN DAN PENILAIAN
JABATAN PENDIDIKAN POLITEKNIK DAN KOLEJ KOMUNITI
KEMENTERIAN PENDIDIKAN TINGGI

JABATAN PERDAGANGAN

PEPERIKSAAN AKHIR

SESI II : 2024/2025

DPB40133 : BUSINESS PROCESS MANAGEMENT

TARIKH : 11 MEI 2025
MASA : 8.30 PAGI - 10.30 PAGI (2 JAM)

Kertas ini mengandungi **SEMBILAN (9)** halaman bercetak.

Struktur (4 soalan)

Dokumen sokongan yang disertakan : Formula

JANGAN BUKA KERTAS SOALAN INI SEHINGGA DIARAHKAN

(CLO yang tertera hanya sebagai rujukan)

INSTRUCTION:

This section consists of **FOUR (4)** structured questions. Answer **ALL** questions.

ARAHAN:

*Bahagian ini mengandungi **EMPAT (4)** soalan struktur. Jawab **SEMUA** soalan.*

QUESTION 1

SOALAN 1

CLO2 (a) Operations management is an essential aspect of an organization's success. Describe **THREE (3)** importance of operations management.

*Pengurusan operasi merupakan aspek penting dalam kejayaan sesebuah organisasi. Huraikan **TIGA (3)** kepentingan pengurusan operasi.*

[6 marks]

[6 *markah*]

CLO2 (b) In order to ensure reliability, efficiency, and cost-effectiveness in operations management, maintenance plays an important role. Explain **TWO (2)** types of maintenance in operations.

*Bagi memastikan kebolehpercayaan, kecekapan, dan keberkesanan kos dalam pengurusan operasi, penyelenggaraan memainkan peranan penting. Jelaskan **DUA (2)** jenis penyelenggaraan dalam operasi.*

[5 marks]

[5 *markah*]

CLO2 (c) Kenangan Development Sdn. Bhd. is a construction company located in Kulim Hi-Tech Park. Before starting a new housing project, the project manager has outlined several activities that must be completed. The activities are described in the following table:

Kenangan Development Sdn. Bhd. merupakan sebuah syarikat pembinaan yang terletak di Kulim Hi-Tech Park. Sebelum projek perumahan baharu dapat dilaksanakan, pengurus projek telah menyenaraikan beberapa aktiviti yang perlu diselesaikan. Aktiviti tersebut dinyatakan dalam jadual berikut:

Activities / ***Aktiviti***	**Preceding activity /** ***Aktiviti sebelum***	**Time (week) /** ***Masa (minggu)***
A	-	5
B	A	3
C	A	6
D	B	12
E	B, C	10
F	D, E	8
G	E	6
H	E	9
I	E	1
J	F, G, I	2
K	H	5
L	J, K	9

By referring to the above information:
Dengan merujuk maklumat di atas:

i) Draw an appropriate PERT network.
Lukiskan rangkaian PERT yang sesuai.

[6 marks]
[6 *markah*]

ii) Based on your answer in (c)(i), determine the slack, critical path, and completion time for the activities.
Berdasarkan jawapan anda di (c)(i), tentukan slack, laluan kritikal, dan masa siap bagi aktiviti tersebut.

[8 marks]
[8 *markah*]

QUESTION 2

SOALAN 2

CLO2 (a) In operations management, the output can be manufactured products or services. Identify **THREE (3)** characteristics of manufactured products and **THREE (3)** characteristics of services.

*Dalam pengurusan operasi, output boleh terdiri daripada produk pembuatan atau perkhidmatan. Nyatakan **TIGA (3)** ciri-ciri produk pembuatan dan **TIGA (3)** ciri-ciri perkhidmatan.*

[6 marks]

[6 *markah*]

CLO2 (b) Layout decisions are important for an organization. Explain **TWO (2)** basic layout patterns with relevant example.

*Keputusan susun atur adalah penting bagi sesebuah organisasi. Terangkan **DUA (2)** corak susun atur asas dengan contoh yang bersesuaian.*

[5 marks]

[5 *markah*]

CLO2 (c) Provide **FOUR (4)** classifications of process strategies with examples for an organization to achieve its competitive advantage.

*Berikan **EMPAT (4)** klasifikasi strategi proses berserta contoh untuk organisasi mencapai kelebihan daya saingnya.*

[14 marks]

[14 *markah*]

QUESTION 3

SOALAN 3

CLO2 (a) Explain **TWO (2)** importance of quality for an organization.

*Jelaskan **DUA (2)** kepentingan kualiti bagi sesebuah organisasi.*

[5 marks]

[*5 markah*]

CLO2 (b) KIRANA Development Sdn. Bhd. is considering three different sites for its new project; Site A, Site B, and Site C. All essential data regarding intangible factors have been gathered to determine the best location for the new project, as shown in the following table. Based on the information provided, examine which location is the most suitable.

KIRANA Development Sdn. Bhd. sedang mempertimbangkan tiga tapak berbeza untuk projek baharunya; Tapak A, Tapak B, dan Tapak C. Semua data penting berkaitan faktor tidak ketara telah dikumpulkan untuk menentukan lokasi terbaik bagi projek tersebut seperti yang ditunjukkan dalam jadual di bawah. Berdasarkan maklumat tersebut, nilaikan lokasi yang paling sesuai.

Intangible factor / *Faktor tidak ketara*	**Rank / *Kedudukan***	**Site A / *Tapak A***	**Site B / *Tapak B***	**Site C / *Tapak C***
Labour availability / *Keberadaan pekerja*	1	Very good *Sangat baik*	Satisfactory *Memuaskan*	Satisfactory *Memuaskan*
Government inducement / *Insentif kerajaan*	2	Poor *Lemah*	Good *Baik*	Very good *Sangat baik*
Quality of life / *Kualiti hidup*	3	Good *Baik*	Excellent *Cemerlang*	Excellent *Cemerlang*
Community acceptance / *Penerimaan komuniti*	4	Excellent *Cemerlang*	Very good *Sangat baik*	Very good *Sangat baik*

*Scoring: Excellent = 5, Very good = 4, Good = 3, Satisfactory = 2, Poor = 1
**Penilaian: Cemerlang = 5, Sangat Baik = 4, Baik = 3, Memuaskan = 2, Lemah = 1*

[10 marks]
[10 markah]

CLO2 (c) The following table shows a time study observation for doughnut-making at Nisa Bakery.
Jadual berikut menunjukkan kajian masa bagi proses pembuatan donat di Nisa Bakery.

Task element/ ***Elemen kerja***	**Observed Time (Minutes) /** ***Masa pemerhatian (minit)***					**Performance Rating (%) /** ***Peratusan prestasi (%)***
	1	**2**	**3**	**4**	**5**	
A	36	39	37	38	38	**120**
B	12	10	36	15	13	**110**
C	3	3	5	5	4	**90**
D	15	18	18	17	16	**85**
E	20	22	23	24	24	**70**

Nisa Bakery allocates 20 minutes for coffee break, 10% process allowances, and 18 minutes of personal time per day (assuming an 8-hour workday). You are required to analyze:

Nisa Bakery memperuntukkan 20 minit untuk waktu rehat, elaun proses sebanyak 10%, dan masa peribadi selama 18 minit sehari (dengan andaian waktu bekerja selama 8 jam sehari). Anda dikehendaki untuk membuat analisa:

i) The allowance factors.
Faktor elaun.

[2 marks]
[2 *markah*]

ii) The total normal time for all tasks.
Jumlah masa biasa untuk setiap tugas.

[6 marks]
[6 *markah*]

iii) The standard time for the doughnut-making.
Masa standard untuk pembuatan donut.

[2 marks]
[2 *markah*]

QUESTION 4

SOALAN 4

CLO2 (a) Elaborate **TWO (2)** types of inventory.

*Jelaskan **DUA (2)** jenis inventori.*

[5 marks]

[5 markah]

CLO2 (b) DESA Coffee Shop, located in Penang, has used 2,500 boxes of premium coffee per year. This coffee is purchased from a supplier in Indonesia. The information regarding coffee usage is as follows:

DESA Coffee Shop yang terletak di Pulau Pinang telah menggunakan 2,500 kotak kopi premium setiap tahun. Kopi ini dibeli daripada pembekal di Indonesia. Maklumat berkaitan penggunaan kopi seperti berikut:

Annual demand = 2, 500 boxes ***Permintaan tahunan = 2,500 kotak***
Holding cost per box per year = RM1.50 ***Kos pegangan setiap kotak setahun = RM1.50***
Order cost per order = RM18.75 ***Kos setiap pesanan = RM18.75***
Lead time = 2 days ***Masa menunggu = 2 hari***
Working days per year = 250 days ***Hari bekerja setahun = 250 hari***

Based on the given information, calculate:

Berdasarkan maklumat diberikan, kira:

i) The Economic Order Quantity (EOQ).

Kuantiti Pesanan Ekonomi.

[2 marks]

[2 *markah*]

i) The Reorder Point (ROP).
Titik pesanan semula.

[4 marks]
[4 *markah*]

ii) The Total Annual Inventory Cost (TAIC).
Jumlah Kos Inventori Tahunan.

[4 marks]
[4 *markah*]

CLO2 (c) Nisa Bakery purchases 32,000 units of cookies annually. The ordering cost is RM35 per order, and the annual carrying cost is 15% of the unit price. The supplier has offered a new price structure to Nisa Bakery. The price structure of cookies is shown below:

Nisa Bakery membeli 32,000 unit biskut setiap tahun. Kos pesanan ialah RM35 bagi setiap pesanan, dan kos penyimpanan tahunan ialah 15% daripada harga seunit. Pembekal telah menawarkan struktur harga baharu kepada Nisa Bakery. Struktur harga biskut ditunjukkan seperti di bawah:

Quantity purchased (units) / *Kuantiti pembelian (unit)*	**Price per unit (RM) / *Harga seunit (RM)***
1 – 1,999	9.80
2,000 – 2,999	9.50
3000 and above	8.90

Analyze the order quantity to minimize the annual inventory cost.
Analisis kuantiti pesanan bagi meminimumkan kos inventori tahunan.

[10 marks]
[*10 markah*]

SOALAN TAMAT

FORMULA DPB40133

- $AOT = \frac{\sum of\ observed\ time}{number\ of\ observation}$
- $BNT = \frac{AOT\ x\ observed\ rate}{Standard\ Rate}$
- $ST = \frac{BNT}{(1-AF)}$ or $ST = BNT\ (1 + AF)$
- $\text{EOQ} = \sqrt{\frac{2DS}{IC}}$
- $\text{N} = \frac{D}{Q}$
- $\text{T} = \frac{\text{WD}}{\text{N}}$
- $\text{ROP} = d\ \text{X L} \qquad d = \frac{annual\ demand}{number\ of\ working\ days}$
- $TAIC = \left(\frac{D}{Q}Co\right) + \left(\frac{Q}{2} + SS\right)Ch$
- $TAIC = \left(\frac{D}{Q}Co\right) + \left(\frac{Q}{2}Ch\right)$
- $TAIC = \left(\frac{D}{Q}Co\right) + \left(\frac{Q}{2}Ch\right) + PD$
- $\text{TAIC + SS} = \left(\frac{D}{Q}Co\right) + \left[\left(\frac{Q}{2}\right) + ss\ (Ch)\right] + PD$
- $t = \frac{\text{a+4m+b}}{6}$

- Daily Standard Output = $\frac{\text{Working hour per *day (in minutes)}}{\text{Standard time}}$
- Number of workers required to meet target output per *day
  = Target output per *day
  *Daily standard output
- Labour cost per unit = $\frac{\text{ST X Labour cost per hour}}{\text{Minutes per hour}}$